

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/461,652DATE: 07/06/95  
TIME: 10:10:59

INPUT SET: S4628.raw

This Raw Listing contains the General  
Information Section and up to the first 5 pages.

## SEQUENCE LISTING

ENTERED

## (1) General Information:

(i) APPLICANT: Kwon, Byoung Se

(ii) TITLE OF INVENTION: New Receptor and Related Products and  
Methods

(iii) NUMBER OF SEQUENCES: 8

## (iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Barnard, Brown &amp; Michaels

(B) STREET: 306 East State Street, Suite 220

(C) CITY: Ithaca

(D) STATE: NY

(E) COUNTRY: USA

(F) ZIP: 14850

## (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk

(B) COMPUTER: IBM PC compatible

(C) OPERATING SYSTEM: PC-DOS/MS-DOS

(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

## (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US

(B) FILING DATE:

(C) CLASSIFICATION:

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/122,796

(B) FILING DATE: 13-SEP-1993

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/012,269

(B) FILING DATE: 01-FEB-1993

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 07/922,996

(B) FILING DATE: 30-JUL-1992

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/267,577

(B) FILING DATE: 07-NOV-1988

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/461,652DATE: 07/06/95  
TIME: 10:11:04

INPUT SET: S4628.raw

47 (viii) ATTORNEY/AGENT INFORMATION:  
48 (A) NAME: Michaels, Christopher A  
49 (B) REGISTRATION NUMBER: 34,390  
50 (C) REFERENCE/DOCKET NUMBER: KWO4  
51  
52 (ix) TELECOMMUNICATION INFORMATION:  
53 (A) TELEPHONE: 607-273-1711  
54 (B) TELEFAX: 607-273-2609  
55  
56  
57 (2) INFORMATION FOR SEQ ID NO:1:  
58  
59 (i) SEQUENCE CHARACTERISTICS:  
60 (A) LENGTH: 838 base pairs  
61 (B) TYPE: nucleic acid  
62 (C) STRANDEDNESS: double  
63 (D) TOPOLOGY: linear  
64  
65 (ii) MOLECULE TYPE: cDNA to mRNA  
66  
67 (iii) HYPOTHETICAL: NO  
68  
69 (iv) ANTI-SENSE: NO  
70  
71 (vi) ORIGINAL SOURCE:  
72 (A) ORGANISM: Homo sapiens  
73 (C) INDIVIDUAL ISOLATE: H4-1BB #1  
74 (D) DEVELOPMENTAL STAGE: Differentiated T-cell  
75 (G) CELL TYPE: Lymphocyte  
76  
77 (ix) FEATURE:  
78 (A) NAME/KEY: CDS  
79 (B) LOCATION: 41..805  
80 (D) OTHER INFORMATION: /codon\_start= 41  
81 /product= "H4-1BB"  
82 /number= 1  
83  
84 (ix) FEATURE:  
85 (A) NAME/KEY: mat\_peptide  
86 (B) LOCATION: 41..802  
87 (D) OTHER INFORMATION: /codon\_start= 41  
88 /product= "H4-1BB"  
89 /number= 1  
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91  
92 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
93  
94 AATCAGCTTT GCTAGTATCA TACCTGTGCC AGATTTCATC ATG GGA AAC AGC TGT 55  
95 Met Gly Asn Ser Cys  
96 1 5  
97  
98 TAC AAC ATA GTA GCC ACT CTG TTG CTG GTC CTC AAC TTT GAG AGG ACA 103  
99 Tyr Asn Ile Val Ala Thr Leu Leu Leu Val Leu Asn Phe Glu Arg Thr

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	10	15	20	
100				
101				
102	AGA TCA TTG CAG GAT CCT TGT AGT AAC TGC CCA GCT GGT ACA TTC TGT			151
103	Arg Ser Leu Gln Asp Pro Cys Ser Asn Cys Pro Ala Gly Thr Phe Cys			
104	25	30	35	
105				
106	GAT AAT AAC AGG AAT CAG ATT TGC AGT CCC TGT CCT CCA AAT AGT TTC			199
107	Asp Asn Asn Arg Asn Gln Ile Cys Ser Pro Cys Pro Pro Asn Ser Phe			
108	40	45	50	
109				
110	TCC AGC GCA GGT GGA CAA AGG ACC TGT GAC ATA TGC AGG CAG TGT AAA			247
111	Ser Ser Ala Gly Gly Gln Arg Thr Cys Asp Ile Cys Arg Gln Cys Lys			
112	55	60	65	
113				
114	GGT GTT TTC AGG ACC AGG AAG GAG TGT TCC TCC ACC AGC AAT GCA GAG			295
115	Gly Val Phe Arg Thr Arg Lys Glu Cys Ser Ser Thr Ser Asn Ala Glu			
116	70	75	80	85
117				
118	TGT GAC TGC ACT CCA GGG TTT CAC TGC CTG GGG GCA GGA TGC AGC ATG			343
119	Cys Asp Cys Thr Pro Gly Phe His Cys Leu Gly Ala Gly Cys Ser Met			
120	90	95	100	
121				
122	TGT GAA CAG GAT TGT AAA CAA GGT CAA GAA CTG ACA AAA AAA GGT TGT			391
123	Cys Glu Gln Asp Cys Lys Gln Gly Gln Glu Leu Thr Lys Lys Gly Cys			
124	105	110	115	
125				
126	AAA GAC TGT TGC TTT GGG ACA TTT AAC GAT CAG AAA CGT GGC ATC TGT			439
127	Lys Asp Cys Cys Phe Gly Thr Phe Asn Asp Gln Lys Arg Gly Ile Cys			
128	120	125	130	
129				
130	CGA CCC TGG ACA AAC TGT TCT TTG GAT GGA AAG TCT GTG CTT GTG AAT			487
131	Arg Pro Trp Thr Asn Cys Ser Leu Asp Gly Lys Ser Val Leu Val Asn			
132	135	140	145	
133				
134	GGG ACG AAG GAG AGG GAC GTG GTC TGT GGA CCA TCT CCA GCT GAC CTC			535
135	Gly Thr Lys Glu Arg Asp Val Val Cys Gly Pro Ser Pro Ala Asp Leu			
136	150	155	160	165
137				
138	TCT CCG GGA GCA TCC TCT GTG ACC CCG CCT GCC CCT GCG AGA GAG CCA			583
139	Ser Pro Gly Ala Ser Ser Val Thr Pro Pro Ala Pro Ala Arg Glu Pro			
140	170	175	180	
141				
142	GGA CAC TCT CCG CAG ATC ATC TCC TTC TTT CTT GCG CTG ACG TCG ACT			631
143	Gly His Ser Pro Gln Ile Ile Ser Phe Phe Leu Ala Leu Thr Ser Thr			
144	185	190	195	
145				
146	GCG TTG CTC TTC CTG CTG TTC TTC CTC ACG CTC CGT TTC TCT GTT GTT			679
147	Ala Leu Leu Phe Leu Leu Phe Phe Leu Thr Leu Arg Phe Ser Val Val			
148	200	205	210	
149				
150	AAA CGG GGC AGA AAG AAA CTC CTG TAT ATA TTC AAA CAA CCA TTT ATG			727
151	Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met			
152	215	220	225	

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/461,652

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TIME: 10:11:14

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153
154 AGA CCA GTA CAA ACT ACT CAA GAG GAA GAT GGC TGT AGC TGC CGA TTT      775
155 Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
156 230                      235                      240                      245
157
158 CCA GAA GAA GAA GAA GGA GGA TGT GAA CTG TGAAATGGAA GTCAATAGGG      825
159 Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
160                      250                      255
161
162 CTGTTGGGAC TTT      838
163
164
165 (2) INFORMATION FOR SEQ ID NO:2:
166
167 (i) SEQUENCE CHARACTERISTICS:
168 (A) LENGTH: 255 amino acids
169 (B) TYPE: amino acid
170 (D) TOPOLOGY: linear
171
172 (ii) MOLECULE TYPE: protein
173
174 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
175
176 Met Gly Asn Ser Cys Tyr Asn Ile Val Ala Thr Leu Leu Leu Val Leu
177 1 5 10 15
178
179 Asn Phe Glu Arg Thr Arg Ser Leu Gln Asp Pro Cys Ser Asn Cys Pro
180 20 25 30
181
182 Ala Gly Thr Phe Cys Asp Asn Asn Arg Asn Gln Ile Cys Ser Pro Cys
183 35 40 45
184
185 Pro Pro Asn Ser Phe Ser Ser Ala Gly Gly Gln Arg Thr Cys Asp Ile
186 50 55 60
187
188 Cys Arg Gln Cys Lys Gly Val Phe Arg Thr Arg Lys Glu Cys Ser Ser
189 65 70 75 80
190
191 Thr Ser Asn Ala Glu Cys Asp Cys Thr Pro Gly Phe His Cys Leu Gly
192 85 90 95
193
194 Ala Gly Cys Ser Met Cys Glu Gln Asp Cys Lys Gln Gly Gln Glu Leu
195 100 105 110
196
197 Thr Lys Lys Gly Cys Lys Asp Cys Cys Phe Gly Thr Phe Asn Asp Gln
198 115 120 125
199
200 Lys Arg Gly Ile Cys Arg Pro Trp Thr Asn Cys Ser Leu Asp Gly Lys
201 130 135 140
202
203 Ser Val Leu Val Asn Gly Thr Lys Glu Arg Asp Val Val Cys Gly Pro
204 145 150 155 160
205

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/461,652DATE: 07/06/95  
TIME: 10:11:19

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206 Ser Pro Ala Asp Leu Ser Pro Gly Ala Ser Ser Val Thr Pro Pro Ala  
207 165 170 175  
208  
209 Pro Ala Arg Glu Pro Gly His Ser Pro Gln Ile Ile Ser Phe Phe Leu  
210 180 185 190  
211  
212 Ala Leu Thr Ser Thr Ala Leu Leu Phe Leu Leu Phe Phe Leu Thr Leu  
213 195 200 205  
214  
215 Arg Phe Ser Val Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe  
216 210 215 220  
217  
218 Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly  
219 225 230 235 240  
220  
221 Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu  
222 245 250 255  
223

## (2) INFORMATION FOR SEQ ID NO:3:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "PCR Primer"

## (iii) HYPOTHETICAL: NO

## (iv) ANTI-SENSE: NO

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

TTYTGyMGAA ARTAYAAyCC

20

## (2) INFORMATION FOR SEQ ID NO:4:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "PCR Primer"

## (iii) HYPOTHETICAL: NO

PAGE: 1

**SEQUENCE VERIFICATION REPORT**  
**PATENT APPLICATION US/08/461,652**

DATE: 07/06/95  
TIME: 10:11:24

**INPUT SET: S4628.raw**

Line	Error	Original Text
27	Wrong application Serial Number	(A) APPLICATION NUMBER: US